September 1991

OREGON LABOR TRENDS

State of Oregon • Employment Division• Department of Human Resources

INDICATORS

UNEMPLOYMENT RATE

Oregon *(Seasonally Adjusted)*

July	1991	5.6
June	1991	6.0
July	1990	5.6

United States *(Seasonally Adjusted)*

July	1991	6.8
June	1991	7.0
July	1990	5.5

WAGE AND SALARY EMPLOYMENT INDEX

Oregon *(1977=100)*

July	1991	135.3
June	1991	134.5
May	1991	134.3
April	1991	134.1
March	1991	134.8

PRODUCTION WORKER AVERAGE HOURLY EARNINGS

Oregon

June	1991	$11.52
May	1991	$11.44
June	1990	$11.05

PRODUCTION WORKER AVERAGE WEEKLY HOURS

Oregon

June	1991	40.6
May	1991	39.5
June	1990	39.2

CONSUMER PRICE INDEX (CPI)
1982-84 = 100
All Urban Customers

Portland-Vancouver

Jan.-June 1991	132.8
Yearly Change	6.3%
Annual Average 1990	127.4
Annual Change	5.8%

United States

August 1991	136.6
Yearly Change	3.8%
Annual Average 1990	130.7
Yearly Change	5.4%

Portland Hotline (503) 326-4132

IT'S A WONDERMENT. . .

Fred Klatz

A long time ago I saw a movie in which one of the main characters, in wide-eyed wonder, used the phrase: "It's a wonderment." I've pretty well forgotten the plot of the movie, but when I look at the course of Oregon's unemployment rate so far this year, that silly phrase comes bubbling up out of my memory. Of course, nobody who makes a profession of playing high-stakes economic trivia can bear letting a "wonderment" stand alone, unassailed, and immutably mysterious. So let's take a look at this "wonderment."

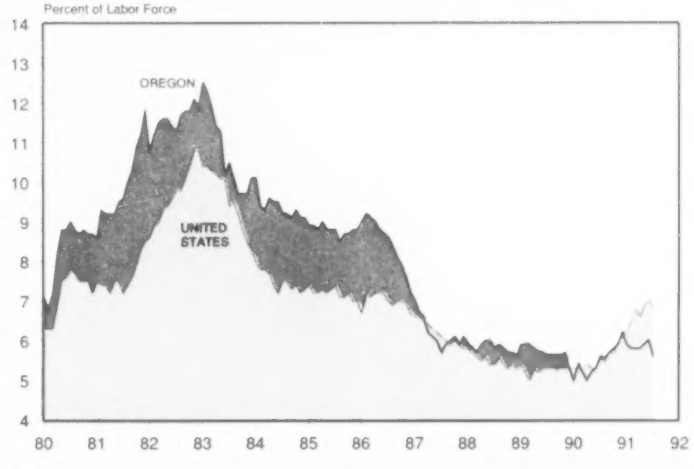
While the nation's raw and seasonally adjusted unemployment rates fell by two-tenths of a percentage point between June and July, Oregon's rates fell by twice that amount. Consequently, Oregon's seasonally adjusted and raw rates, both at 5.6%, now stand at more than a full percentage point below those of the nation. Our raw rate, using comparable methodologies, hasn't been below the national raw rate since the summers of 1977 and 1978. And then not with such a large spread.

Both Oregon and the nation improved between June and July; however, the nation showed some deterioration in its total employment on a year-to-year basis. U.S. total employment fell by over 1.2 million since July of '90 (a 1% drop), while Oregon's total employment increased by 2.8%.

The country's weakness in total employment was mirrored in payroll employment. While a decline in payroll employment is not out of character for the June-July period, the reduction was a little more than expected. Hence, seasonally adjusted payroll employment registered a very slight drop (-51,000). This tendency toward weakness may be more long term than just a month. A comparison with July 1990 shows that current U.S. payroll employment is lower by almost 1.5 million: a 1.4% decline.

While Oregon followed the nation in showing a small drop in payroll employment (-11,900), it was less than expected at this time of year. Consequently, seasonally adjusted employment showed a nominal increase between June and July: 0.6%. Oregon's

SEASONALLY ADJUSTED UNEMPLOYMENT RATES
OREGON AND THE UNITED STATES



Civilian Labor Force Only

OREGON NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT (BY PLACE OF WORK)

INDUSTRY	1/ JUL. 1991	2/ JUN. 1991	JUL. 1990	CHANGE FROM JUN. 1991	CHANGE FROM JUL. 1990
TOTAL 5/	1,265,300	1,277,200	1,247,600	- 11,900	17,700
WAGE & SALARY EMPLOYMENT INDEX 6/	135.3	134.5	133.3	XXX	XXX
GOODS PRODUCING INDUSTRIES 7/	274,600	267,800	284,200	6,800	- 9,600
SERVICE PRODUCING INDUSTRIES 8/	990,700	1,009,400	963,400	- 18,700	27,300
TOTAL MANUFACTURING	215,800	210,900	227,000	4,900	- 11,200
DURABLE GOODS	152,700	150,900	161,700	1,800	- 9,000
LUMBER & WOOD PRODUCTS	60,000	59,200	66,000	800	- 6,000
LOGGING	11,300	10,800	11,900	500	- 600
SAWMILLS	19,600	19,800	22,100	- 200	- 2,500
VENEER & PLYWOOD	12,400	12,300	14,800	100	- 2,400
MILLWORK & STRUCTURAL WOOD	10,500	10,200	11,000	300	- 500
MOBILE HOMES	2,000	2,000	2,000	0	0
OTHER WOOD PRODUCTS	4,200	4,100	4,200	100	0
FURNITURE AND FIXTURES	3,000	3,000	3,100	0	- 100
STONE, CLAY, GLASS & CONCRETE	4,500	4,500	4,400	0	100
PRIMARY METALS	11,400	11,500	11,500	- 100	- 100
BLAST FURNACES, IRON & STEEL 9/	6,000	6,000	5,800	0	200
NONFERROUS METALS 9/	5,400	5,500	5,700	- 100	- 300
FABRICATED METALS	11,400	11,200	11,800	200	- 400
FABRICATED STRUCTURAL METALS	4,900	4,800	5,100	100	- 200
OTHER FABRICATED METALS	6,500	6,400	6,700	100	- 200
MACHINERY	15,900	15,900	18,100	0	- 2,200
OFFICE & COMPUTING MACHINES	4,100	4,300	4,600	- 200	- 500
OTHER MACHINERY	11,800	11,600	13,500	200	- 1,700
ELECTRONIC & OTHER ELECTRIC EQUIPMENT 9/	17,700	17,500	17,500	200	200
TRANSPORTATION EQUIPMENT	13,100	12,600	13,200	500	- 100
INSTRUMENTS & RELATED PRODUCTS 9/	11,700	11,600	11,900	100	- 200
MISCELLANEOUS MANUFACTURING	4,000	3,900	4,200	100	- 200
NONDURABLE GOODS	63,100	60,000	65,300	3,100	- 2,200
FOOD & KINDRED PRODUCTS	26,500	23,600	28,700	2,900	- 2,200
CANNING & PRESERVING	14,700	12,000	17,100	2,700	- 2,400
OTHER FOOD PRODUCTS	11,800	11,600	11,600	200	200
TEXTILE MILL PRODUCTS	1,500	1,500	1,600	0	- 100
APPAREL	2,800	2,800	2,800	0	0
PAPER & ALLIED PRODUCTS	9,600	9,500	9,600	100	0
PRINTING & PUBLISHING	14,400	14,500	14,100	- 100	300
CHEMICALS & ALLIED PRODUCTS	2,400	2,400	2,400	0	0
PETROLEUM & ASPHALT PRODUCTS	700	600	600	100	100
RUBBER & PLASTIC PRODUCTS	4,700	4,600	5,100	100	- 400
LEATHER PRODUCTS	500	500	400	0	100
TOTAL NONMANUFACTURING	1,049,500	1,066,300	1,020,600	- 16,800	28,900
MINING & QUARRYING	1,800	1,800	1,700	0	100
CONSTRUCTION	57,000	55,100	55,500	1,900	1,500
BUILDING CONSTRUCTION	13,100	12,300	13,400	800	- 300
HEAVY CONSTRUCTION	8,800	8,800	8,000	0	800
SPECIAL TRADE CONTRACTORS	35,100	34,000	34,100	1,100	1,000
TRANSPORTATION, COMMUNICATIONS, & UTILITIES	64,500	64,900	63,400	- 400	1,100
TRANSPORTATION	42,800	43,200	42,100	- 400	700
RAILROAD	3,700	3,800	3,800	- 100	- 100
TRUCKING & WAREHOUSING	24,900	24,700	24,600	200	300
OTHER TRANSPORTATION	14,200	14,700	13,700	- 500	500
COMMUNICATIONS	12,300	12,300	12,100	0	200
UTILITIES	9,400	9,400	9,200	0	200
TRADE	320,900	318,000	315,800	2,900	5,100
WHOLESALE TRADE	81,600	80,800	79,500	800	2,100
DURABLE GOODS	47,100	47,000	46,500	100	600
MACHINERY, EQUIPMENT, & SUPPLIES	10,700	10,700	10,900	0	- 200
OTHER DURABLE GOODS	36,400	36,300	35,600	100	800
NONDURABLE GOODS	34,500	33,800	33,000	700	1,500
GROCERIES & RELATED PRODUCTS	12,200	11,800	12,100	400	100
OTHER NONDURABLE GOODS	22,300	22,000	20,900	300	1,400
RETAIL TRADE	239,300	237,200	236,300	2,100	3,000
BUILDING MATERIALS & GARDEN SUPPLIES	9,600	9,400	9,200	200	400
GENERAL MERCHANDISE	29,900	29,300	30,300	600	- 400
FOOD STORES	40,200	39,500	40,300	700	- 100
AUTO DEALERS & SERVICE STATIONS	28,100	28,200	28,200	- 100	- 100
APPAREL & ACCESSORY STORES	10,400	10,100	10,600	300	- 200
FURNITURE & HOME FURNISHINGS	9,400	9,400	9,400	0	0
EATING & DRINKING PLACES	88,800	88,400	85,500	400	3,300
MISCELLANEOUS RETAIL	22,900	22,900	22,800	0	100
FINANCE, INSURANCE, & REAL ESTATE	84,100	82,800	80,800	1,300	3,300
FINANCE	29,000	28,600	28,700	400	300
INSURANCE	23,400	23,200	23,100	200	300
REAL ESTATE	31,700	31,000	29,000	700	2,700
SERVICES	307,900	307,600	296,500	300	11,400
HOTELS & OTHER LODGING PLACES	22,700	21,900	21,700	800	1,000
PERSONAL SERVICES	11,000	11,000	10,900	0	100
BUSINESS SERVICES	50,700	51,700	50,100	- 1,000	600
AUTOMOTIVE & MISC. REPAIR SERVICES	17,400	17,600	17,000	- 200	400
MOTION PICTURES & AMUSEMENTS	14,500	14,400	14,200	100	300
HEALTH SERVICES	88,200	87,900	85,500	300	2,700
LEGAL SERVICES	9,600	9,400	9,100	200	500
PRIVATE EDUCATION	12,800	13,600	11,900	- 800	900
SOCIAL SERVICES	28,600	28,500	26,300	100	2,300
ENGINEERING & MANAGEMENT SERVICES	22,500	22,300	21,000	200	1,500
OTHER SERVICES & NEC	29,900	29,300	28,800	600	1,100
GOVERNMENT	213,300	236,100	206,900	- 22,800	6,400
FEDERAL GOVERNMENT	36,000	35,700	36,200	300	- 200
STATE GOVERNMENT	59,100	64,000	58,200	- 4,900	900
EDUCATION	21,300	26,600	21,300	- 5,300	0
OTHER STATE	37,800	37,400	36,900	400	900
LOCAL GOVERNMENT	118,200	136,400	112,500	- 18,200	5,700
EDUCATION	66,100	85,400	62,000	- 19,300	4,100
OTHER LOCAL	52,100	51,000	50,500	1,100	1,600
LABOR-MANAGEMENT DISPUTES 10/	100	0	400	100	- 300

OREGON RESIDENT LABOR FORCE
(BY PLACE OF RESIDENCE)

	JUL. 1991 1/	JUN. 1991 2/	JUL. 1990	CHANGE FROM JUN. 1991	CHANGE FROM JUL. 1990
CIVILIAN LABOR FORCE 3/	1,557,800	1,559,400	1,515,500	- 1,600	42,300
UNEMPLOYMENT	87,300	93,200	85,100	- 5,900	2,200
PERCENT OF LABOR FORCE	5.6	6.0	5.6	XXX	XXX
SEASONALLY ADJUSTED PERCENT	5.6	6.0	5.6	XXX	XXX
TOTAL EMPLOYMENT 4/	1,470,500	1,466,200	1,430,400	4,300	40,100

1/ Preliminary
2/ Revised
3/ Includes employed and unemployed individuals 16 years and older, adjusted for multiple job holding and commuting.
4/ Includes nonagricultural wage and salary, self employed, unpaid family workers, domestics, farm workers, and labor disputants.
5/ Includes full and part time nonfarm wage and salary workers in pay periods including the 12th of the month. Proprietors, self employed, private household workers and armed forces excluded. Note: These data are estimated in cooperation with the U.S. Bureau of Labor Statistics and the Employment and Training Administration. All data are based on the 1987 Standard Industrial Classification (SIC) codes.
6/ Total nonagricultural wage and salary employment, seasonally adjusted, and inuexed to 1977. Data on the earlier index (1972 = 100) can be converted to the 1977 base period by multiplying by a factor of 0.6264, the ratio between 1972's annual average employment (774,300) and that of 1977 (936,900).
7/ Goods producing industries include manufacturing, mining, and construction.
8/ Service producing industries include transportation, communications, and utilities; trade; finance, insurance, and real estate; services; and government.
9/ Series break. Data for 1988 and thereafter are not comparable to those for 1987 and before.
10/ Employees involved in labor disputes are not included in wage and salary employment counts.

economy continued to show some employment strength, with a 1.4% increase in payroll employment over last year at this time.

The manufacturing sector of Oregon's economy added 4,900 jobs in July, but this was a sharp annual loss of -4.9%. Most of the monthly strength was in food and kindred products, which gained 2,900. Even though this growth was more than expected, it only brought the level up to a point 2,200 below that of July 1990. Of the 11,200 annual decline in manufacturing payroll employment, over half was in lumber and wood products. This sector saw a fall of 9% in its employment on a year-to-year basis. On the other hand, U.S. manufacturing employment fell between June and July, but its annual decline of 4% was less than Oregon's.

Nonmanufacturing employment in Oregon moved in the opposite direction from manufacturing, showing a month-to-month loss of 16,800, and a year-to-year gain of 28,900.

The nation's construction industry also grew between June and July, but is sharply depressed (-9%) from year ago levels.

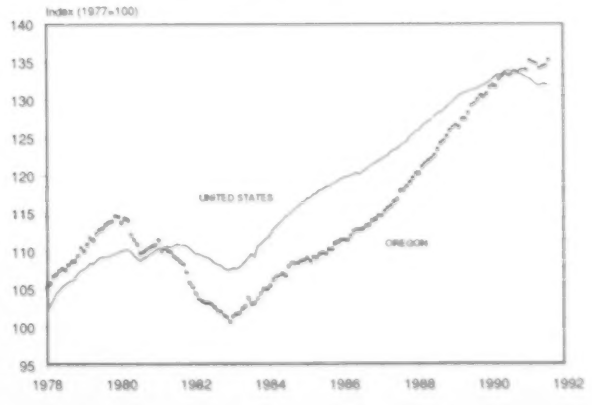
The July drop was centered in government and is normal for this time of year when schools break for summer vacation. Therefore, this decline was concentrated in state and local education, which fell by 24,600, or 22%. While this is a very large decrease, it is not as large as usual.

Construction employment was somewhat of an offset to Oregon's July decline in nonmanufacturing by growing both monthly and annually. Job gains were especially strong among special trades contracting firms. The June-July increase of 1,900 jobs is not considered to be exceptional for this time of year. The nation's construction industry also grew between June and July, but is sharply depressed (-9%) from year ago levels.

Retail trade in Oregon followed construction's pattern of increasing both month-to-month and year-to-year. The June-July upswing was exceptionally strong for this time of year. General merchandise and food stores were heavy contributors to this rise. Retail trade at the national level followed the opposite course with job losses over both the month and year.

Oregon's wholesale trade sector added 800 jobs in July, quite a bit more than expected for this time of year. Also its yearly increase of 2.6% was quite strong. Nationally, wholesale trade fell between June and July and was 2.6% lower than a year ago. Additionally, on a seasonally adjusted basis, employment has been falling since March. This is a worrisome trend at the national level, since the seasonally adjusted numbers should be showing a real economic trend rather than a temporary seasonal fluctuation. The negative indications at the national level in trade employment may be an indication of a weak consumer reaction to other positive signs in the economy. The opposite situation in Oregon may help to explain why Oregon's unemployment rate is staying lower than the national rate.

NONFARM WAGE & SALARY EMPLOYMENT INDEXES
(SEASONALLY ADJUSTED)



The services sector of Oregon's economy turned in a very small employment increase between June and July, but exhibited a strong annual growth of 3.8%. Health services led the way in absolute numbers, 2,700, but trailed percentage-wise. Social services gained the most in percentage terms (8%), followed by engineering and management services (7%), and hotel and lodging places (5%). Nationally, the service industries didn't hold up as well in July. Some actually fell from their June levels, but overall, were still 1.4% higher than last year. Unlike Oregon, health services nationally showed a 5% gain over last year's employment. Annual growth in business services at the national level was negligible, and there was a slight decline in the monthly employment estimates.

In conclusion, Oregon's unemployment rate continues to outpace the nation's in terms of improvement. Oregon's unemployment rates, both seasonally adjusted and raw, are now at historic spreads below those of the country as a whole. While payroll employment fell between June and July, the decline was expected: it was centered in the education sectors of state and local government. On an annual basis, the total payroll employment trend is positive, but that masks a fall in manufacturing employment. Manufacturing registers a consistent picture of negatives across most of its constituent industries. However, the negative impact of manufacturing industries is washed out by increases in nonmanufacturing payroll employment.

UNEMPLOYMENT RATES BY AREA

Area	1990 Rank	1990	1989	1989-90 Change
United States		5.5	5.3	0.2
Oregon		5.5	5.7	-0.2
Gilliam	1	3.0	4.1	-1.1
Benton	2	3.8	3.5	0.3
Portland PMSA 1/	3	4.2	4.5	-0.3
Malheur	4	5.3	7.3	-2.0
Salem MSA 3/	5	5.4	5.9	-0.5
Sherman	6	5.6	6.7	-1.1
Curry	7	5.8	6.4	-0.6
Eugene MSA 2/	7	5.8	5.5	0.3
Deschutes	9	5.9	6.8	-0.9
Lincoln	10	6.0	6.0	0.0
Tillamook	11	6.1	6.8	-0.7
Clatsop	12	6.4	6.4	0.0
Jefferson	12	6.4	6.0	0.4
Crook	14	6.6	7.2	-0.6
Medford MSA 4/	15	6.8	6.7	0.1
Union	15	6.8	7.5	-0.7
Wallowa	17	7.3	7.5	-0.2
Columbia	18	7.4	7.3	0.1
Hood River	19	7.8	8.2	-0.4
Linn	19	7.8	7.5	0.3
Wasco	19	7.8	8.3	-0.5
Josephine	22	8.0	7.8	0.2
Baker	23	8.2	8.1	0.1
Umatilla	24	8.3	9.7	-1.4
Douglas	25	8.4	7.8	0.6
Grant	25	8.4	8.8	-0.4
Morrow	27	8.8	12.5	-3.7
Coos	28	9.0	9.8	-0.8
Harney	29	9.2	11.0	-1.8
Klamath	30	9.3	7.8	1.5
Lake	30	9.3	9.5	-0.2
Wheeler	32	10.8	9.8	1.0

1/ Clackamas, Multnomah, Washington & Yamhill counties
2/ Lane County
3/ Marion & Polk counties
4/ Jackson County

A HOUSE DIVIDED

When we speak of unemployment rates, it is easy to assume that the unemployment that they represent is spread fairly evenly over a given geographic area. For example, the unemployment rate for Oregon improved between June and July. Right? Well, that depends on what you mean by "Oregon."

Manufacturing registers a consistent picture of negatives across most of its constituent industries.

The national unemployment rate also improved, but the media has pretty well highlighted the fact that there are states and regions within the U.S. which are still having economic problems. In fact, the perception of the economic health of the nation may well be affected by where the particular observer is doing his or her observing. Some people are having difficulty accepting the idea that the country is in the throes of a recovery; they're looking for a "double dip" recession. But the *Wall Street Journal* (Western edition, Friday, August 23, 1991, page 1, col. 1) points out that: "...such pessimism could be because most such pundits live or work in New York City and other hard hit areas in the Northeast or Southwest, which badly trail other regions."

This same sort of situation is true in our state. The rate for the state may be quite low, or improving significantly, but some counties may still be showing high rates of

unemployment. This is accepted almost as a "fact of life." One of the reasons this is so acceptable is that it is so consistent. In July, Portland, with 46% of the state's civilian labor force, accounted for only 39% of the state's unemployment. Hence its rate at 4.7% was relatively low when compared with other counties. This means that other areas of the state produced that "extra" unemployment. The July area estimates show that out of the 31 labor market areas which are outside of Portland, eight had unemployment rates at or below Portland's. This was quite a bit better than in June, when four counties' rates were at or below Portland's. However, the situation in June tends to be more the rule than that in July. If we look at the annual average unemployment rates for Oregon's labor market areas we can verify that.

Oregon, like the nation, is not monolithic, and economic prosperity can be very localized.

In the 1980s there were only two counties that consistently showed annual average unemployment rates at or below Portland's: Benton (July labor force = 37,900) and Gilliam (July labor force = 1,340). Even though the definition of what comprises the Portland labor market was changed in 1983,so that a comparison of current data to figures prior to that date isn't precise,there seemed to be more counties in the mid-70s with annual unemployment rates at or below Portland's. The reason I bring this up is because one would think that, with the long period of economic improvement that has become the hallmark of the previous decade , more counties would be showing lower unemployment rates. After all, the state rate peaked in 1982 at 11.5% and has been falling ever since.It would appear that Oregon, like the nation, is not monolithic, and economic prosperity can be very localized. In fact, there may be some observers and residents of Oregon who do not consider the state's unemployment rate to be a "wonderment."

AVERAGE HOURS AND EARNINGS OF OREGON INDUSTRIAL PRODUCTION WORKERS[1]

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	June[2] 1991	May[3] 1991	June 1990	June[2] 1991	May[3] 1991	June 1990	June[2] 1991	May[3] 1991	June 1990
TOTAL MANUFACTURING[4]	$467.71	$451.88	$433.16	40.6	39.5	39.2	$11.52	$11.44	$11.05
Durable Goods	476.68	454.57	441.86	41.2	39.7	39.7	11.57	11.45	11.13
Lumber & Wood Products	478.08	450.40	444.21	41.9	40.0	40.2	11.41	11.26	11.05
Logging & Sawmills	517.33	483.60	476.00	42.3	40.0	40.0	12.23	12.09	11.90
Veneer & Plywood	456.77	426.78	416.30	41.6	39.7	39.2	10.98	10.75	10.62
Millwork & Structural	409.19	402.87	401.21	41.5	40.9	42.1	9.86	9.85	9.53
Mobile Homes	382.98	335.39	369.03	39.2	34.9	39.3	9.77	9.61	9.39
Other Wood Products	466.90	445.81	423.20	42.6	40.9	40.0	10.96	10.90	10.58
Furniture & Fixtures	395.21	393.39	368.89	39.6	39.3	37.0	9.98	10.01	9.97
Primary Metals	532.06	531.62	475.01	41.6	41.5	38.4	12.79	12.81	12.37
Fabricated Metals	442.68	427.85	408.06	40.8	39.8	38.9	10.85	10.75	10.49
Machinery (Ex Electrical)	460.78	435.05	450.06	41.4	38.5	40.4	11.13	11.30	11.14
Nondurable Goods	444.96	442.71	413.39	39.1	38.8	38.1	11.38	11.41	10.85
Food & Kindred Products	356.63	363.34	330.64	37.5	37.0	35.9	9.51	9.82	9.21
Canning & Preserving	294.63	304.32	267.70	36.6	36.1	33.8	8.05	8.43	7.92
Other Food Products	439.65	437.77	430.10	38.6	38.2	39.1	11.39	11.46	11.00
Textile Mill Products	281.78	275.91	268.48	39.3	37.9	38.3	7.17	7.28	7.01
Apparel	280.74	272.84	265.57	39.1	38.7	38.6	7.18	7.05	6.88
Paper & Allied Products	674.10	682.40	633.29	42.8	43.8	41.5	15.75	15.58	15.26
Printing & Publishing	498.73	474.30	475.64	38.1	37.2	37.6	13.09	12.75	12.65
Construction[4]	586.59	589.48	581.77	36.8	35.9	37.9	15.94	16.42	15.35
Communications & Utilities[5]	637.56	626.80	581.80	42.0	41.4	40.6	15.18	15.14	14.33
Trade[5]	293.97	273.11	329.47	32.7	31.0	35.2	8.99	8.81	9.36
Wholesale Trade	471.23	441.22	433.58	39.8	38.4	38.1	11.84	11.49	11.38
Retail Trade	236.21	218.22	276.34	30.4	28.6	33.7	7.77	7.63	8.20
Banking & Insurance[5]	409.11	379.10	362.41	39.0	35.9	37.4	10.49	10.56	9.69
State & Local Government	427.64	423.49	403.74						

[1]Figures are average gross hours and earnings of full and part-time worked or paid for, including overtime and shift premium pay. Prepared in cooperation with the U.S. Department of Labor. All data are based on the 1987 Standard Industrial Classification (SIC) codes.
[2]Preliminary
[3]Revised
[4]Data for production workers only and exclude administrative, supervisory (above working foremen), technical, sales and office personnel.
[5]Data for nonsupervisory employees only, excluding proprietors and executive personnel. Prior to 1991, data for retail trade excludes eating and drinking places.

HOW VALID IS THE 1990 OREGON SURVEY?

Edward Schafer and Matthew Barmack

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Introduction

During the spring of 1990, the Executive Department of the State of Oregon commissioned a statewide telephone survey of households. This survey, known as the Oregon Survey, is the first of a series of data collection efforts to be continued on a biennial basis. The purpose of the survey is to provide basic demographic and socioeconomic information at state and regional levels for policy and program formulation.

The timing of the first Oregon Survey was purposefully selected to coincide with the 1990 Decennial Census so that the results of these two independent data collection efforts could be compared. The results of the comparison should reveal sampling bias within the survey. This information can then be used to construct a post-survey weighting scheme for the 1990 survey and a weighting scheme for use on additional surveys throughout the 1990s.

This report provides a comparison of the results of the 1990 Oregon Survey with those obtained for Oregon from the complete count questionnaire of the 1990 Decennial Census. The comparisons will focus on the following items: household population, number of persons per household, tenure of households, age distribution of the population, and the race and ethnicity of the population.

Design of the 1990 Oregon Survey

The Oregon Survey is a sample survey of 3,200 Oregon households, 400 from each of eight county groups. It was determined that a sample size of 400 households would provide sufficiently precise estimates of social and economic characteristics of the population of these regions.

Within each region, households were selected through a random digit dialing procedure called "one-plus dialing." Telephone numbers were systematically selected from directories. The value of one was added to the selected number to insure that households with new, changed, and/or unlisted numbers had an equal chance of selection in the survey. Once contact with the household was established, a random process based upon the birthdays of the household members was used to select respondents within each sampled household. At least three attempts were made to contact and interview the selected respondent (Bardsley & Neidhart, Inc., 1990).

Once the respondent was selected and contacted a seven page questionnaire was administered over the telephone. Basic socioeconomic and demographic information concerning the household and its members such as age, sex, education, income, labor force status, occupation and tenure was collected. The survey also included questions on the respondent's attitudes on social, economic, and political issues such as the Oregon Lottery.

Design of the 1990 Census

The 1990 Census is designed to be both a complete enumeration of the nation's households and population and a sample survey of other socioeconomic attributes. A set of questions pertaining to basic demographic and housing unit characteristics are asked of all households while socioeconomic and additional demographic information is sought from a sample of households. The data are collected using primarily a mail-out/mail-back questionnaire. In those areas of the nation where normal street addresses are not in use, a mail-out/enumerator pick-up method of data collection was employed.

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Following the collection of the 1990 Census information, the U.S. Bureau of Census conducted a post-enumeration survey to assess the completeness of coverage of the census. This national survey of 160,000 U.S. households allowed the Bureau to estimate the rate of under- or over-coverage of the census to sub-state areas. The results of the post-enumeration survey indicate that the undercount of the 1990 Decennial Census in Oregon was approximately 1.9%. This was less than occurred nationally (2.1%).

Although there is solid evidence of significant undercount of population and possibly a corresponding undercount of housing units in Oregon, we will use the 1990 Census as the basis for evaluating the Oregon Survey. Although flawed, it is the "benchmark" for subsequent estimates and projections.

Comparisons Between the Oregon Survey and the 1990 Census

In order to compare the results of the Oregon Survey and the Census at the statewide level, we generated an estimate of statewide population, household size, household tenure, age distribution, and race and ethnicity from the Oregon Survey data. We disaggregated the raw data from the Oregon Survey by county. We then calculated a weighted average of these county data, where each weight was the ratio of households surveyed in the Oregon Survey to the number of households enumerated in the 1990 Census for each county.

At first glance, the results of the Oregon Survey seem close to the results of the 1990 Census (Table 1). While the 1990 Census enumerated 2,842,321 persons in Oregon, Oregon Survey data indicates a population of 2,856,711. Considering the possibility of undercounting in the census and random sampling error in the survey data, this difference has little significance. However, the census data refers to the state's total population while the Oregon Survey covers only the household population; i.e., it excludes people living in prisons, college dormitories, retirement homes, and other institutions. In 1990 this non-household population in Oregon amounted to 66,205 persons, or 2.3% of the total enumerated population. Compared with the census enumerated household population, the Oregon Survey estimate is nearly 3% higher.

What accounts for this discrepancy? From Table 2, we see that the average household size estimated from the Oregon Survey data is 2.59. This is significantly higher than the household size of 2.52 for Oregon from the 1990 Census. If we use the figure from the Oregon Survey rather than the 1990 Census, we would incorrectly conclude that average household size had not changed in Oregon during the 1980s (2.60 versus 2.59) when, in fact, it has declined by 3.1%.

Table 1

Total and Household Population, 1990 Census, and Estimates of Household Population, Oregon Demographic Survey

	1990 U.S. Census		Oregon Demographic Survey
	Total Population	Household Population	Survey Population
Number	2,842,321	2,776,116	2,856,711
Percent of total population 1990 Census	100.0%	97.7%	100.5%

Table 2

Households by Number of Persons per Household
Oregon Demographic Survey and 1990 Census

	Survey	Census	Difference
1 person	231,946	278,716	-16.8%
2 persons	413,574	394,530	4.8%
3 persons	182,059	173,937	4.7%
4 persons	176,928	154,776	14.3%
5 persons	67,424	64,669	4.3%
6 persons	18,171	22,912	-20.7%
7+ persons	13,209	13,773	- 4.1%
Total	1,103,311	1,103,313	
Average household size	2.59	2.52	

What explains these differences found between the 1990 Census and the Oregon Survey? In short, the problems encountered with the Oregon Survey are typical of all telephone surveying, and to a lesser extent, house-to-house surveys. In telephone surveying, in order to successfully obtain an interview you must first call the household during a time when a member of that household is home. In general, the more people who live in a household, the more often someone in the household is going to be physically present in the housing unit. Thus, it is not surprising that larger households are easier to contact in telephone surveys. In particular, it is difficult to find single-person households. This fact becomes obvious when you compare the estimated distribution of household sizes from the Oregon Survey to the actual distribution of household sizes enumerated in the 1990 Census (Table 2). The number of 1-person households estimated from the Oregon Survey (231,946) is nearly 17% below the number of 1-person households counted in the Census (278,716). Similarly, the number of 4-person households in the survey is 14% greater than the number found by the 1990 Census.

This problem with telephone surveys also accounts for the discrepancy between the results of the Oregon Survey and the census on household tenure (Table 3). A disproportionate number of singles rent. Thus, it is to be expected that the proportion of renters from the Oregon Survey is too low.

Since the Oregon Survey is a household survey, it excludes the population in institutions, and this affects age distribution estimates. A disproportionate number of the elderly are institutionalized. The 1990 Census counted 18,105 people age 65 years and older living in institutions. Thus, we would expect the Oregon Survey to estimate a household population of roughly 373,300 persons age 65 years and older. Yet, the actual estimated population 65 years and over is 412,119 (Table 4). This represents an over-estimate of approximately 10.5%. Again, the over-estimation of the elderly population reflects the fact that the Oregon Survey was conducted by telephone and the elderly are more likely to be found at home.

Table 3

Tenure of Housing Units
Oregon Demographic Survey and 1990 Census

	Survey	Census	Difference
Owner occupied units	746,266	695,957	7.2%
Renter occupied units	356,155	407,356	-12.6%
Total	1,102,421	1,103,313	- 0.1%

Table 4

Population by Age

Age	Survey (Household Population)	Census (Total Population)	Difference
0-19	835,479	802,516	4.1%
20-64	1,609,113	1,648,481	-2.4%
65 plus	412,119	391,324	5.3%
Total	2,856,711	2,842,321	0.5%

Another problem with the Oregon Survey was the way in which respondents were asked to describe their race and ethnicity. In the census, respondents are asked to identify their race (White, Black, American Indian, Eskimo, Aleut, Asian and Pacific Islander, or other) and their ethnicity (Hispanic or non-Hispanic). In the Oregon Survey these two concepts were combined. Thus, there is no valid comparison on race between the 1990 Census and the Oregon Survey. However, we have included Table 5 which contains race and ethnicity data for illustrative purposes.

Table 5

Race and Ethnicity of Householder
Oregon Demographic Survey and 1990 Census

Race & Ethnicity	Survey	Census
White	1,033,697	1,043,711
Black	17,798	15,385
American Indian	20,035	11,923
Asian & Pacific Islander	13,366	20,008
Other	n/a	12,286
Hispanic	17,023	28,204
Missing	1,394	n/a
Total	1,103,313	1,103,313

Conclusion

While this article has taken a critical approach to the evaluation of the 1990 survey, we wish to conclude our evaluation by noting that the Oregon Survey does provide reasonable estimates for most demographic variables. For example, the survey overestimates average household size by only 3%. In addition, the estimates of two- and three-person households is less than 5% too high. Only the elderly population was significantly over-estimated (10%).

One of the motivations for establishing the Oregon Survey was to provide detailed demographic and socioeconomic data for the state and sub-state areas, such as provided by the Decennial Census, in non-census years. This first Oregon Survey was conducted at the same time as the 1990 Census as an experiment to look for sampling errors and biases related to surveying techniques. Several problems with the Oregon Survey are apparent. These must be addressed by attempting to reduce the biases of the survey using statistical techniques or by changing the way in which the survey is conducted. Currently, sufficient 1990 Census data have been released so that survey users can construct post-survey weighting schemes. These post-survey weights will help offset the under-representation of single-person households. Also, it will be possible to construct additional weights correcting for the fact that not all households have telephones following the release of 1990 Census Summary Tape File 3 (STF3) which contains information on household telephone service. Finally, the race/ethnicity problem in the 1990 Oregon Survey will be easy to correct in later versions of the survey by re-phrasing the question.

In conclusion, the 1990 Oregon Survey provides reasonable estimates of the household population of the state. It could easily be made better by developing a post-survey weighting scheme to counteract some of the bias typical of telephone survey techniques. Additional evaluation of the survey should be done following the release in 1992 of STF3, particularly those items dealing with socioeconomic information (income, occupation, industry, and poverty status).

EMPLOYERS' CORNER

HAS OR - OSHA CALLED ON YOU LATELY?

Barbara Sharp

(Editor's note: Barbara Sharp is President of Sharp Management Services, a Tigard, Oregon consulting firm.)

OR-OSHA - Oregon Occupational Safety and Health Administration - the term conjures up fear in most people, especially those of us in personnel.

In many companies, the task of complying with the various agencies' laws has fallen on the personnel desk as a matter of "convenience." Never mind that the personnel manager has had not one hour of risk management or safety training. Those things are common sense or come by rote, right? WRONG!

With the new Worker's Compensation reform of 1990, a push has been made by OR-OSHA to assist employers in complying with many regulations. Your safety committee implementation is a start and can be a great help to your personnel manager in getting the ball rolling.

OR-OSHA is looking for many things these days, some of which are:

1. Is your safety committee implemented, etc?
2. If you need a hazard communication program, do you have one? Are employees trained?
3. Are safety hazards being addressed?
4. Forklift training?
5. Lockout/tagout program done?
6. Are there guards on grinders and other pieces of equipment where they are necessary?

And the list goes on and on....

To be in compliance, you must have knowledge of the codes. There is assistance. You can call OSHA's consultative office (378-3272) and ask for a consultant to help you or you can look in the Yellow Pages under "safety consultants."

But whatever you do, DO SOMETHING. Do not wait until the compliance officer shows up at your door for an audit.

NEW PUBLICATIONS

The Oregon Economic Development Department has recently updated two publications.

Economic Profile of Oregon

Economic Profile of Oregon covers the state's economic trends of the past ten years. From population to international trade, from employment to inflation, the publication provides summary-level data for a quick view of Oregon's economy during the recession and recovery of the 1980s. 36 pages, $3.50 postpaid. To order, send a check or money order to Marketing Services Section, Oregon Economic Development Department, 775 Summer St NE, Salem, Oregon 97310.

County Economic Indicators

County Economic Indicators contains data for each of Oregon's thirty-six counties. The data cover the years 1980 to 1990 and range from population to building permits and from average payroll to assessed value of property. About 80 pages. For price, call 1-800-233-3306 (within Oregon) or (503) 373-1290.

Oregon EMPLOYMENT DIVISION

OREGON LABOR TRENDS

Oregon Labor Trends is published monthly by the Research and Statistics Section of the Oregon Employment Division.

Pamela Mattson, Administrator
Virlena Crosley, Asst. Administrator, Research & Statistics
Jeffry Hannum, State Economist and Editor
Kathi Groome, Typesetting
Carol Schmidt, Graphics

Please send any address changes to Research & Statistics, LMI Program Unit, Room 207, 875 Union Street NE, Salem, OR 97311 or phone (503) 378-8657.

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